

land. This view, bold as it is, is strikingly supported by the fact ascertained by Mr. Kemp, that the terraces encircle the highest hills in the neighbourhood of Galashiels, almost to their summits. But as my object in this paper was merely to explain the difficulties suggested by my former one, I shall not anticipate the more able communications about to appear on this important and absorbing subject, or the pleasure to be derived from the "Etudes sur les Glaciers de la Suisse" of Prof. Agassiz himself.

J. E. BOWMAN.

Manchester, Nov. 16th, 1840.

XLII.—*Carabideous Insects collected by Charles Darwin, Esq., during the Voyage of Her Majesty's Ship Beagle*. By G. R. WATERHOUSE, Esq.

[Continued from p. 257.]

ALL the species noticed in this communication are from Maldonado, La Plata.

Genus BRACHINUS.

Sp. 1. *Brachinus maculipes*.

*B. niger*; capite, thorace, pedibus, pectoreque ferrugineis; gcnibus nigris; antennis fusciscentibus; articulis primo et secundo ferrugineis, tertio quartoque nigris; elytris subcostatis.

*B. crepitanti* ferè similis, at duplò major.

Long  $6\frac{1}{2}$  lin.; lat.  $2\frac{3}{4}$  lin.

In form and appearance this species greatly resembles the *Brachinus crepitans*, but its size is much larger; the eyes are rather more prominent, the elytra are black, and in the specimen before me, destitute of the blue or green tint usually observable in that species, and the striæ are a trifle more distinct; it moreover differs in having the apical portion of all the femora black. Like *B. crepitans*, the third and fourth joints of the antennæ are black, but the following joints are pitchy-black, and thus differ from the corresponding joints in that species: the abdomen is black beneath, but the chest is pitchy-red.

But one specimen of this species was brought home by Mr. Darwin: it is readily distinguished from *Brachinus Platensis* by its larger size, the black third and fourth joints of the antennæ, the black tip to the femora, and the darker colour of the elytra.

Sp. 2. *Brachinus Platensis*.

*B. ferrugineus*; elytris fusciscenti-nigris, subcostatis; abdomine ad apicem nigricante.

*B. crepitanti* simillimus, sed paulò major.

Long  $4\frac{1}{2}$ —5 lin.; lat. 2— $2\frac{1}{4}$  lin.

This species greatly resembles *B. crepitans*: its average size is rather greater—the smaller specimens being about equal in size to the larger-sized individuals of *B. crepitans*—it differs moreover in having the third and fourth joints of the antennæ red instead of black; the thorax is longer and less dilated in front; the elytra are rather wider, have a slight pitchy hue, their elevated ridges are more distinct, and there is scarcely any trace of punctures in the interstices. The body beneath is pitchy-red, the red colour most distinct on the chest, and on the apical portion of the abdomen the pitch colour prevails; the four basal joints of the antennæ are pale testaceous, and the remaining joints are brownish; the legs are pale testaceous; the thorax and hinder portion of the head are very delicately punctured.

In Mr. Darwin's collection are five specimens agreeing with the above description, and a sixth specimen, which differs only in being considerably larger—its length is 6 lines, and width  $2\frac{2}{3}$  lines.

Besides these there is a *Brachinus* which in some respects resembles the *B. Platensis*, but is probably a distinct species; as I do not however like to found a species upon a single specimen, unless that specimen possess well-marked characters, I will merely call attention to its peculiarities.

The four basal joints of the antennæ, the head, thorax, legs and chest are red, the elytra are dull black, with an indistinct pitchy hue, and the abdomen is pitchy, and an indistinct pitchy spot is observable on the tip of the femora. The head and thorax, as well as the elytra, are impunctate, and the latter are furnished with slightly elevated ridges. Length  $4\frac{1}{2}$  lines.

This insect differs from *B. Platensis*, in having the head and thorax impunctate, the thorax shorter, the femora tipped with pitchy, and the elevated striæ of the elytra less distinct. From *B. crepitans* (which it greatly resembles) it may be distinguished by the impunctate upper surface of the head, thorax, and elytra, the want of black on the third and fourth joints of the antennæ and the dusky tip to the femora; to which may be added the dull black colour of the elytra. For the present it may be called *B. Platensis*, var. ?

Sp. 3. *Brachinus nigripes*.

*B. niger*; pectore, coxis, capite, thoraceque ferrugineis; antennis fusciscentibus, ad basin nigrescentibus; articulis basalibus ferrugineo pictis; elytris subcostatis.

*B. crepitante* paulò minor.

Long. 3— $2\frac{3}{4}$  lin.; lat  $1\frac{1}{2}$ — $1\frac{1}{3}$  lin.

This species is a trifle smaller than *B. crepitans*, the head and thorax are proportionately rather smaller, the elytra shorter and broader, and the antennæ longer; the eyes are more prominent, and the head is more attenuated behind.

The head and thorax are red, impunctate; the latter with rather a deep dorsal channel, and two somewhat shallow posterior foveæ; palpi black, the extremities of the joints reddish; antennæ with the

basal joint black, tinted with red at the base, the second, third, and fourth joints black, and the following joints pitchy; legs black, the coxæ red, and the tarsi pitchy; chest reddish in the middle, the rest of the body beneath, as well as the elytra, black; the ridges on the elytra are well marked, and their interstices are impunctate.

The collection contains four specimens of this species.

#### Genus CHLÆNIUS.

##### Sp. 1. *Chlænium violaceus*.

*C. niger*, suprâ violaceus; capite inter oculos punctato; thorace punctato, posticè paulò angustato, foveis duabus impresso; elytris profundè striatis, interstitiis subpunctulatis et paulò convexis.

Long.  $7\frac{1}{2}$ ; lat.  $3\frac{1}{4}$ .

This species is very nearly equal in size to the *Ch. velutinus* of Europe, which it also somewhat resembles in form. The eyes are a trifle more prominent; in the form of the thorax as well as in the sculpturing these two insects very nearly agree, but the dorsal channel is rather more distinct in *Ch. violaceus*. The elytra in the present species are smaller in proportion to the head and thorax, rather more convex, the striæ are deeper, and the interstices are more convex, than in *Ch. velutinus*: the puncturing in the inter-spaces of the striæ is moreover rather more distinct, and the punctures are far less numerous.

In one of the two specimens brought by Mr. Darwin the upper surface of the body is of a beautiful steel blue, and the thorax is violet; in the second specimen the whole of the upper parts is violet; the under parts of the body and the lip and antennæ are black, but the latter are tinted with pitch colour at the apex; the palpi are pitchy black. On the fore part of the head are a few scattered punctures, and on the hinder part one of the specimens is rather thickly and coarsely punctured; the other specimen has much fewer punctures on this part. The thorax is rather narrower than the head, and nearly equal in length and width; it is subquadrate, but slightly dilated near the front; its upper surface is coarsely punctured, on the disc these punctures are not very abundant: the dorsal channel is well marked and rather broad; the posterior foveæ are moderately deep. The elytra are subovate, less straight at the sides than in *Ch. velutinus*, rather deeply striated; the interstices are very convex, and distinctly, but rather sparingly, punctured.

##### Sp. 2. *Chlænium (Platensis) Braziliensis?* Dejean.

*C. obscurè niger*, suprâ viridis; antennis pedibusque testaceis; capite nitido; thorace punctato, subnitido, posticè attenuato, foveis duabus impresso; elytris striatis, interstitiis planis crebrè et minutissimè punctulatis.

Statura paulò major quàm *Ch. nigricornis*.

Long.  $5\frac{1}{2}$  lin.; lat.  $2\frac{1}{2}$ .

In size and colouring the *Ch. Platensis* resembles the *Ch. nemo-*  
*Ann. & Mag. N. Hist. Vol. vi.*

*ralis* of North America; the head is larger, and the thorax more attenuated behind.

The head and thorax are either green or brassy—sometimes inclining to copper colour; the head is glossy, and the thorax but little so, it being rather thickly and coarsely punctured, excepting on the disc, where the punctures are less numerous; whilst the head is impunctate, but has on the hinder part some very minute transverse wrinkles; the eyes are rather prominent. The thorax is about one-third broader than the head, has a distinct dorsal channel, and large and somewhat shallow posterior foveæ; it is distinctly attenuated behind, and broadest near the fore part. The elytra are destitute of gloss, of an obscure dusky green colour, and rather delicately punctate-striated; the interstices are flat and densely covered with very minute punctures, and with a moderately strong lens a slight pubescence is observable. The body beneath is black and slightly pubescent, and the apical portion of the abdomen is obscurely margined with testaceous: the legs are pale testaceous; the three basal joints of the antennæ and the palpi are red; the remaining joints of the antennæ are brownish; the labrum is pitchy, sometimes reddish.

This appears to be the most common species of *Chlænium* in the neighbourhood of Maldonado, La Plata; it is possibly the *Ch. Brasiliensis* of Dejean's Supplément, but that insect is described as six French lines in length, and it is not improbable, therefore, that it is a nearly allied but larger species. Five specimens are in the collection of Mr. Darwin.

### Sp. 3. *Chlænium Westwoodii*.

*C. obscurè niger, suprà obscurè viridis; antennis pedibusque testaceis; antennis ad apicem tarsisque fuscescentibus; capite subnitido; thorace angustato, posticè paulò attenuato, foveis duabus, punctulisque minutissimis, impresso; elytris striatis, interstitiis planis crebrè et minutissimè punctulatis.*

*C. Platensi* ferè similis et paulo minor et thorace angustiore.

Long.  $5\frac{1}{2}$  lin.; lat.  $2\frac{1}{3}$  lin.

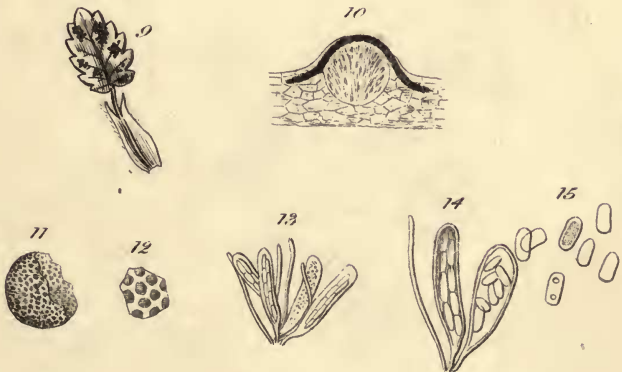
I have applied the name *Westwoodii* to two specimens of *Chlænium* brought from Maldonado by Mr. Darwin, which in size nearly agree with the common English species (*Ch. vestitus*); as regards the form they approach more nearly to the *Ch. Platensis* just described, having the head and thorax longer in proportion to the elytra, but the thorax is considerably narrower than in either of these insects, being scarcely broader than the head.

The head green, somewhat glossy, and covered above with most minute rugæ, which are scarcely discernible unless through a strong lens; the eyes are prominent; the labrum and base of the mandibles are pitchy-red. The thorax is but little broader than the head, longer than broad, and slightly attenuated behind; the dorsal channel is but faintly marked, and the posterior foveæ are shallow and rather long; the upper surface of the thorax as well as that of the elytra is green and destitute of gloss; the punctures on the thorax are very minute and scattered; the striæ of the elytra are rather



*Peziza succosa.*

*Agaricus Bellii.*



*Sphaeria Rhytismoides.*